



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 1, 2001

CERTIFIED RETURN RECEIPT
7000 0520 0021 7582 9859

David Peterson, President
Delta Minerals, Inc.
545 South Oak Drive
Woodland Hills, Utah 84653

Re: Initial Review of Notice of Intention to Commence Large Mining Operations, Delta Minerals, Inc.,
TD Mining 1, M/027/080, County, Utah

Dear Mr. Peterson:

The Division has completed its review of your Notice of Intention to Commence Large Mining Operations for the TD Mining 1 Mine, located in Millard County, Utah. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. Please provide a response to this review within 30 days (by September 7, 2001).

The Division will suspend further review of the TD Mining 1 mine notice until your response to this letter is received. If you have any questions in this regard please contact me, Lynn Kunzler, Tom Munson or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb

Attachment: Review

cc: Larry Garahana, BLM, Filmore FO
o:\review\M27-80.rvw

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Initial Review
M/027/080
July 10, 2001

REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Delta Minerals, Inc.
TD Mining 1

M/027/080
July 10, 2001

R647-4-104 Operator's, Surface and Mineral Ownership

The Fillmore BLM Field Office has indicated that there is a question as to the mineral ownership at this site. Please provide formal documentation which confirms the current owner of record. (DJ)

R647-4-105 Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

The outlined area of disturbance on Map 1 (the 7.5 minute base map) and Map 2 (close up of Map 1) do not match. Map 2 does not have a scale. These maps will aid in the location of the site, but a more detailed surface facilities map with adequate scale is needed for calculation purposes. (DJ)

105.2 Surface facilities map

A surface facilities map should be provided at a scale of not less than 1 inch = 500 feet. The map should include, but not be limited to, stationary mining/processing equipment, roads, location of topsoil storage areas, overburden/waste dumps, etc. Include a border clearly outlining the extent of the surface area proposed to be affected by mining operations. Your plan indicates that a building will be constructed at the site to cover the majority of the crushing components. Please include detailed construction plans for this feature. (DJ)

Please submit a mine plan map showing the mining sequence for a minimum period of at least five years. (DJ)

Please provide a reclamation treatments map of the site indicating areas to receive various reclamation treatments with areas shaded, cross hatched or color coded to identify which reclamation treatments will be applied. Reclamation treatments include ripping, regrading, replacing soil, fertilizing, mulching, broadcast seeding, drill seeding, etc. Also identify any highwall areas and the proposed reclamation treatments as well. (DJ)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please provide cross-sections, drawn to scale, of the affected area showing the present ground surface, the surface after mining and the surface after reclamation. Please provide at least one cross-section east-west and one north-south through the affected area. These cross-sections need to be drawn to scale for calculation purposes. (DJ)

R647-4-106 Operation Plan

106.3 Estimated acreages disturbed, reclaimed, annually.

Please provide an estimate of acreages to be disturbed annually. Estimated acreage included in the plan indicate one acre of concurrent reclamation, please indicate on the site map where this area is located. (DJ)

106.4 Nature of materials mined, waste and estimated tonnages

Please estimate the amount of soil that will be harvested and stockpiled from the areas to be disturbed. (DJ)

106.5 Existing soil types, location, amount

Please provide a copy of a soil survey for the area (it should be available from the Natural Resources Conservation Service). Also, please provide a laboratory analysis of the soil materials available for reclamation. At a minimum, the analysis needs to include: pH, Electrical conductivity, Cation Exchange Capacity, Texture, Percent Organic Matter, available Nitrogen, Phosphorus (as P_2O_5) and Potassium (as K_2O). (LK)

106.6 Plan for protecting & redepositing soils

Please provide a plan for protecting the soil stockpiles until it will be used for reclamation. The plan should include: provisions for temporary stabilization with vegetation, berming, signage, etc. (LK)

106.7 Existing vegetation - species and amount

Your notice indicates a range of 10% – 20% vegetation ground cover. Division observations of the vegetation in the local area indicate that the ground cover is closer to 20%. This will need to be confirmed during our next onsite inspection. For now, the Division will assume the 20% figure, since it does fall within the range submitted. Also, you will need to provide a list of the predominant plant species that are growing in the mine area. (LK)

R647-4-107 Operation Practices

107.4 Suitable soils removed & stored

Please provide an estimate of the volume of soil material that has been, or will be salvaged and stored for reclamation. (LK)

107.6 Concurrent reclamation

Please indicate the area, if any, which will be reclaimed concurrently during mining. (DJ)

R647-4-109 Impact Assessment

109.4 Slope stability, erosion control, air quality, safety

The crushers and material handling systems at the site will require a permit from the Division of Air Quality. Covering conveyors will suppress some of the dust emanating from belts but conveyor transfer points and crushers will also need to be addressed. (DJ)

R647-4-110 Reclamation Plan

110.1 Concurrent & post mining land use

Concurrent and post mining land uses need to be identified. It is suggested that this be coordinated with the BLM. It is likely that the proposed land use for this area is grazing and wildlife habitat. (LK)

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Please describe how any highwalls that result from the mining will be reclaimed. Describe the configuration of these features after reclamation. Will the highwalls be backfilled or otherwise reduced to a stable configuration? A maximum 45 degree highwall slope angle is required by statute and rule unless a variance is justified and approved. (DJ)

Please indicate final slope design, during reclamation, of any waste dumps that may occur at the site. Anticipated recontoured cross-sections of the waste dump areas showing final slope angles would suffice. The Division recommends recontouring dump slopes to at minimum 3H:1V slope angle to insure long term stability and revegetative success. (DJ)

110.5 Revegetation planting program

Attached is a recommended seed mix for reclamation. It is essentially the same seed mix as that used on the neighboring Drum Mine reclamation project. Also, it may be necessary to add fertilizer or other soil amendments to ensure successful revegetation. The exact type(s) and rate(s) cannot be determined until the soils lab report is reviewed (see comments under R647-4-106.5). It is anticipated that approximately 10 tons per acre of composted manure may be needed as a soil amendment (this amount was needed at the Drum Mine site). (LK)

R647-4-111 Reclamation Practices

111.5 Land capable of post mining land use

The attached seed mix would provide for a grazing/wildlife habitat post mining land use. (LK)

111.7 Highwalls stabilized at 45 degrees or less

See comment under R647-4-110.2. (DJ)

111.8 All roads & pads reclaimed

All compacted areas including the crusher area and roads should be deep ripped (~ 2 feet) during final reclamation. (DJ)

111.12 Topsoil redistribution

Please provide a plan for soil redistribution at the site. The plan should indicate how the stockpiled topsoil will be reapplied (equipment type), to what areas, and the application rate (average depth). (DJ)

R647-4-112 Variance

No variances were requested in this plan.

R647-4-113 Surety

All surety calculations should include indications where the unit costs originated (Cat handbook, Means, etc.). (DJ)

R647-4-115 Confidential Information

No confidential information was included in this plan.

Attachment: recommended revegetation seed mix

Recommended Revegetation Species List
for

Delta Minerals, Incorporated
TD Mining 1
M/027/080

<u>Common Name</u>	<u>Species Name</u>	<u>*Rate lbs/ac (PLS)</u>
Hycrest crested wheatgrass	<u>Agropyron cristatum</u>	1.0
Luna pubescent wheatgrass	<u>Agropyron tricophorum</u>	2.0
Western wheatgrass	<u>Agropyron smithii</u>	2.0
Indian ricegrass	<u>Oryzopsis hymenoides</u>	2.5
Bluebunch wheatgrass	<u>Agropyron spicatum</u>	2.0
Ladak alfalfa	<u>Medicago sativa</u>	1.0
Yellow Sweetclover	<u>Melilotus officinalis</u>	0.5
Palmer penstemon	<u>Penstemon palmerii</u>	0.5
Wyoming big sagebrush	<u>Artemisia tridentata wyomingensis</u>	0.1
4-wing saltbush	<u>Atriplex canescens</u>	2.0
Forage Kochia	<u>Kochia prostrata</u>	0.5
Total Seed		14.1 lbs/ac

* Rate is recommended for broadcast seeding.